

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

We claim:

- 1) (currently amended) A method of fabricating a cassette for a solid oxide fuel cell (SOFC) stack comprising the steps of
 - a. stamping an separator plate thereby displacing an outer edge and at least one oxygen manifold collar in an upward direction,
 - b. stamping a frame thereby displacing an outer edge and at least one hydrogen manifold collar in a downward direction, wherein at least one of said frame and said separator plate are formed as having support bumps,
 - c. attaching a positive-electrolyte-negative cell (PEN) to said frame, and
 - d. attaching said frame to said separator plate to form a manifold and a hermetic seal between the outer edge of the separator plate and the frame,
 - e. thereby allowing the flow of gasses across the PEN cell.
- 2) (original) The method of claim 1 wherein said separator plate and said frame are formed of 400 series stainless steel.
- 3) (original) The method of claim 1 further comprising providing current collectors in communication with each side of said separator plate.
- 4) (original) The method of claim 3 wherein said current collectors are provided as a flexible electrically conducting material.
- 5) (original) The method of claim 4 wherein said flexible electrically conducting material is a screen.
- 6) (original) The method of claim 5 wherein the screen provided on the cathode, or oxidizing side of said separator plate is fabricated from 400 series stainless steel.
- 7) (original) The method of claim 5 wherein the screen provided on the anode, or reducing side of said separator plate is fabricated from nickel.
- 8) (original) A method of fabricating a SOFC stack comprising the steps of:

- a. fabricating a plurality of cassettes according to the method of claim 1,
 - b. stacking said plurality of cassettes on top of one and another so that the anode side of each cassette is in electrical communication with the cathode side of each adjacent cassette, and
 - c. forming an electrically insulating gas tight seal between the frame of each cassette and the separator plate of each adjacent cassette.
- 9) (original) The method of claim 8 wherein the electrically insulating gas tight seal is selected from the group consisting of a glass and an insulating gasket.
- 10) (original) The method of claim 9 wherein the insulating gasket is alumina.
- 11) (original) The method of claim 10 wherein the insulating gasket is hermetically bonded using a braze.
- 12) (original) The method of claim 10 wherein the insulating gasket is hermetically bonded using glass.
- 13) (currently amended) A solid oxide fuel cell formed of a plurality of cassettes, each cassette comprising:
- a. a stamped separator plate having an outer edge and at least one oxygen manifold collar displaced in an upward direction,,
 - b. a stamped frame having an outer edge and at least one hydrogen manifold collar displaced in a downward direction, wherein at least one of said frame and said separator plate has support bumps
 - c. positive-electrolyte-negative cell (PEN) attached to said frame, wherein the frame of each cassette is attached to the separator plate of each successive cassette in a gas tight, non-conducting seal that maintains electrical isolation between the anode side and the cathode side of each PEN cell and forms a manifold allowing the flow of gasses across the PEN cell.
- 14) (previously amended) The solid oxide fuel cell of claim 13 wherein the electrically insulating gas tight seal is selected from the group consisting of a glass and an insulating gasket.
- 15) (previously amended) The solid oxide fuel cell of claim 14 wherein the insulating gasket is alumina.

- 16) (previously amended) The solid oxide fuel cell of claim 13 wherein said separator plate and said frame are formed of 400 series stainless steel.
- 17) (previously amended) The solid oxide fuel cell of claim 13 further comprising current collectors maintaining electrical connection between each side of each PEN cell and each adjacent separator plate.
- 18) (previously amended) The solid oxide fuel cell of claim 17 wherein said current collectors are a flexible electrically conducting material.
- 19) (previously amended) The solid oxide fuel cell of claim 18 wherein said flexible electrically conducting material is a screen.
- 20) (previously amended) The solid oxide fuel cell of claim 19 wherein the screen on the cathode, or oxidizing side of the PEN cells is fabricated from 400 series stainless steel.
- 21) (previously amended) The solid oxide fuel cell of claim 19 wherein the screen provided on the anode, or reducing side of the PEN cells is fabricated from nickel.